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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/522,262

09/21/2005

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800186US

5683

7590
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Locust Valley, NY 11560

11/25/2008

EXAMINER

SHINGLETON, MICHAEL B

ART UNIT

PAPER NUMBER

2815

MAIL DATE

DELIVERY MODE

11/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/522,262	Applicant(s) HIETANEN, IIRO	
	Examiner Michael B. Shingleton	Art Unit 2815	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 36-72 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 36-72 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This office action supercedes and replaces the previous office action and corrects for mistakes in the previous restriction/election requirement.

Restriction is required under 35 USC 121 and 372. This application contains the following inventions which are not listed as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 36-55 and 72, drawn to a structure i.e. a substrate, imaging system or a radiation detector.

Group II, claims 56-71, drawn to a method of manufacturing a plurality of photodetectors.

Group I and Group II listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding technical features for the following reasons: The special technical features seems to be the through-substrate via filled with conducting material, but this feature is known in at least, for example, US patent publication 6,225,651 and therefore cannot be a special technical feature. Furthermore, the specific structure that results from first forming the photodetectors and then forming the through hole, i.e. via through the substrate and then filling the via with conductive material which appears to be different from forming the via first and then form the photodetectors elements is not recited in the device claims and therefore there is a lack of a single general inventive concept and accordingly lack the same or corresponding technical features.

Because the via through the substrate filled with conducting material just cannot be a "special" technical feature as this is commonly known see US patent publication 6,225,651 the application is seen as containing claims directed to more than one species or the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Species A: directed to a mere substrate.

Species B: directed to an imaging system.

Species C: directed to a radiation detector.

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Applicant is required, in reply to this action, to elect BOTH a single group and if Group II is elected then applicant is required to elect a single species from Species A-C to which the claims shall be restricted if no generic claim is finally held allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP 809.02(a).

This application contains claims directed to more than one species of the generic invention.

Species A: to which claims 36-51 seem to be directed.

Species B: to which claims 52-55 seem to be directed.

Species C: to which claim 72 seem to be directed.

Currently no claim is considered to be generic.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: the special technical feature seems to be the through-substrate via (through hole) filled with conducting material, but this feature is known in at least, for example, US Patent publication 6,225,651 and therefore cannot be a special technical feature. The species therefore lack a common or corresponding special technical feature and therefore do not relate to a single general inventive concept.

Should the applicant amend the elected species to be allowable over the prior art i.e. present a "special technical feature", should applicant also provide the special technical feature by amendment to the non-elected species, then the examiner will review the non-elected species to see if in fact the claims directed to the non-elected species can therefore be allowed with the elected species.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael B. Shingleton whose telephone number is (571) 272-1770.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Parker, can be reached on (571) 272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in cursive script that reads "Michael B. Shingleton". The signature is written in a dark ink and is positioned in the center-right of the page.

MBS
16th day of October in the year 2008

/Michael B. Shingleton/
Michael B Shingleton
Primary Examiner
Group Art Unit 2815